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| SUN MICROSYSTEMS/FINNEGAN, HENDERSON LLP<br>901 NEW YORK AVENUE, NW<br>WASHINGTON, DC 20001-4413 |             |                      | ALAM, SHAHID AL     |                  |
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 08/865,841

Filing Date: May 30, 1997

Appellant(s): NIELSEN, JAKOB

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Jeffrey A. Berkowitz  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed November 9, 2006 appealing from the Office action mailed May 1, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

|           |                |         |
|-----------|----------------|---------|
| 5,550,971 | BRUNNER et al. | 08-1996 |
| 5,995,979 | COCHRAN        | 11-1999 |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1 – 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Cochran U.S. Patent no. 5,995,979.

As per claim 1, Cochran discloses "a computer apparatus for information retrieval" by providing a plurality of computers connected in a network (See Cochran figure 1, components 720) including computer software that permit the accessing of data from a computer database (See Cochran Col. 5, lines 40-42).

As to the claimed features of "a bus", this feature is primarily incorporated in the computers disclosed by Cochran since a bus is a set of hardware lines or conductors used for data transfer among the components of a computer system. Notice that "a processor" is inherent in a computer" because it is the computational and control unit of a computer.

As to the claimed limitations of "a communication interface connected to the bus", Cochran discloses that each computer (Figure 1 component 720) has memory space 717 and a monitor device 725. It would be apparent that each of the computers of Cochran includes an interface that connects pieces of hardware with the processor so that information can be moved from place to place. Cochran has shown the claimed limitations of "information storage accessible through the bus and containing stored information" as a CD-ROM (See Cochran Col. 5, lines 39-41) and it is also apparent that the CD-ROM would be connected to a bus to properly function with the processor.

As to a processor configured to "receive non-predetermined search queries submitted by a client" and "process those queries" Cochran provides a mechanism such as computer software which permits the accessing of data from a computer database" (See Cochran Col. 5, lines 40-41). In particular, claim 1 recites a processor "to provide a list of terms used in the search queries presented over a period of time, wherein the list

of terms are selectively added to the stored information against which the search queries are processed". Cochran discloses the aforementioned claimed limitations by providing a method for managing the presentation of search terms on a computer wherein multiple lists of search terms are displayed, a search is conducted based upon selected search terms from one or more of the multiple search lists, also, the records identified by the search is used to form new lists of search terms (See Cochran Abstract', Col. 4, lines 1-57; Figure 2 and corresponding text).

The Applicant should duly note that the claimed limitations of "receiving search queries from a client" indicating in Cochran U.S. Patent 5,995,979; column 5, lines 40-41 and "receiving non-predetermined queries submitted by a client" are not different in scope because when queries are being submitted to a query interface it is either selected or typed by the user that, therefore, makes the query being non-predetermined. To further illustrates the aforementioned explanation, Cochran specifically indicated in Column 1, lines 30-44 that a database may be searched by specifying the desired information sought as a search term and the searcher may further specify whether the search term is to be limited to a given field or all fields. This is a clear teaching of Cochran U.S. Patent no. 5,995,979 of "non-predetermined queries submitted by a user/searcher".

As per claims 2 – 3, most of the limitations of these claims have been noted in the rejection of claim 1 . Applicant's attention is directed to the rejection of claim 1 above. In addition, Cochran disclose the claimed limitations of "a term to be selectively

added Is added to a document of file as a meta-tag", by allowing entry to be made in the lists; thus, updating the lists (See Cochran Col. 12, lines 54-56). Notice that the lists, of Cochran (See Cochran Figures 3-10b), are multi-element data structure that has a linear organization that allows elements to be added or removed. Thus, when updating the lists, entries are made in the multi-element data structure. The Applicant should duly note that a meta-tag is described in the specification (page 1, lines 11-12) as an entry in a meta-information section of a document or a file. As to the claimed feature of "a term to be selectively added is also added to an inverted index" Cochran achieved this limitation by providing lists of search terms where the lists can be updated (See Cochran Figures 3-10b) Thus, It would be apparent from Cochran's use of updating lists that term must be added to an inverted index to effectively create alternative locators for the search terms in the lists.

As per claim 4, Cochran discloses an information retrieval system" by providing a plurality of computers connected in a network (Cochran figure 1, components 720) including computer software that permit the accessing of data from a computer database (Cochran Col. 5, lines 40-42).

In particular, Cochran discloses the claimed limitations of "a network" "a plurality of users connected to said network" by providing a computer communication network (Cochran Figure 1).

Further, Cochran discloses the claimed features of "at least one server connected to said network, said Server containing stored items and searching the

stored items in response to non-predetermined search queries received from the users" (Cochran Col. 5, line 65- Col. 7, line 4).

Last, Cochran discloses the claimed limitations of "said server configured to provide a list of terms used in search queries over a period of time, wherein the list of terms are selectively added to at least one of the stored items the at least one of the stored items being selected by selections received from users using a browser" by providing a method for managing the presentation of search terms on a computer wherein multiple lists of search terms are displayed, a search is conducted based upon selected search terms from one or more of the multiple search lists, also, the records identified by the search is used to form new lists of search terms (See Cochran Abstract', Col. 4, lines 1-57., Figure 2 and corresponding text).

As per claims 5 – 6, most of the limitations of these claims have been noted in the rejection of claim 4. Applicant's attention is directed to the rejection of claim 4 above.

In addition, Cochran disclose the claimed limitations of "a term to be selectively added is added to a document of file as a meta-tag; by allowing entry to be made in the lists', thus, updating the lists (See Cochran Col. 12, lines 54-56). Notice that the lists, of Cochran (See Cochran Figures 3-10b), are multi-element data structure that has a linear organization that allows elements to be added or removed. Thus, when updating the lists, entries are made in the multi-element data structure. The Applicant should duly note that a meta-tag is described in the specification (page 1 , lines 11-12) as an entry

in a meta-information section of a document or a file. As to the claimed feature of "a term to be selectively added is also added to an inverted index" Cochran achieved this limitation by providing lists of search terms where the lists can be updated (See Cochran Figures 3-10b). Thus, It would be apparent from Cochran's use of updating list that term must be added to an inverted index to effectively create alternative locators for the search terms in the lists.

As per claim 7, most of the limitations of this claim have been noted in the rejection of claims 1 and 4 above. In addition, Cochran discloses the claimed feature of providing an element for storing a list of non-predetermined queries received from a client" and "an element for storing a list of search terms used in the queries together with frequency of occurrence of the search terms" by providing memory spaces for retaining search request (See Cochran Col. 6, lines 40-52). Also, Cochran discloses the claimed limitations of "providing an element for selecting" (See Cochran Col. 7, lines 48-54). Last, Cochran discloses the claimed limitations of "processing each search term of said portion and selectively adding each search term to documents or files stored in said systems as a meta-tag" by allowing entry to be made in the lists, thus, updating the lists (See Cochran Col. 12, lines 54-56).

Notice that the lists, of Cochran (See Cochran Figures 3-10b), are multi-element data structure that has a linear organization that allows elements to be added or removed. Thus, when updating the lists, entries are made in the multi-element data structure.

The Applicant should duly note that a meta-tag is described in the specification (page 1, lines 11-12) as an entry in a meta-information section of a document or a file.

As per claims 8 – 10, most of the limitations of these claims have been noted in the rejection of claims 7 and 4 above. In addition, Cochran discloses the claimed feature of "presenting the term to a user together with at least identifiers of a number of documents or files stored in said system containing said term; presenting the term to a user together with at least portions of a document identified by one of said identifiers" (See Cochran. col. 7, line 10-Col. 9, line 59)', "said term is presented to a user with portions of a document in a graphical user interface having a user activatable function for adding a term to said document as a meta-tag" (See Cochran Figures 3a-9d and corresponding text).

As per claims 11 – 12, most of the limitations of these claims have been noted in the rejection of claim 7. Applicant's attention is directed to the rejection of claim 7 above. In addition, Cochran disclose the claimed limitations of "providing an element for selectively adding said term to said document as a meta-tag"; by allowing entry to be made in the lists. thus, updating the lists (See Cochran Col. 12, lines 54-56). Notice that the lists of Cochran (See Cochran Figures 3-10b) are multi-element data structure that has a linear organization that allows elements to be added or remove. Thus, when updating the lists, entries are made in the multi-element data structure. The Applicant should duly note that a meta-tag is described in the specification (page 1 , lines 11-12)

as an entry in a meta-information section of a document or a file. As to the claimed feature of "providing an element for adding information about the term added to said document as a meta-tag in an inverted index" Cochran achieved this limitation by providing lists of search terms where the lists can be updated (See Cochran Figures 3-10b). Thus, It would be apparent from Cochran's use of updating list that terms must be added to an inverted index to effectively create alternative locators for the search terms in the lists.

As per claim 13, all the limitations of this claim have been noted in the rejection of claims 1-12. Namely, "providing an element for storing" and "providing an element for adding". It is therefore rejected as set forth above.

As per claim 14, all the limitations of this claim have been noted in the rejection of claims 1-12. Namely, "providing and element for generating a term", "providing an element for generating a list" and using the list and the term for adding to documents containing those terms as a meta-tag. It is therefore rejected as set forth above.

As per claims 15-17, all the limitations of these claims have been noted in the rejection of claims 14 as well as claims 2-3 including terms to be added as meta-tag. They are therefore rejected as set forth above.

As per claims 18-26, most of the limitations of these claims have been noted in the rejection of claims 1-12. In addition, Cochran discloses sorting non-predetermined query terms received from a client (See Cochran Figure 3D and corresponding text; eliminating noise words or stop words (Figure 3c and corresponding text). Also, claims 18-26 set forth features that are inherent to carry out the invention as detailed in the analysis above. Namely, providing an element for extracting terms used in search query is inherent in a database since the primary purpose of submitting a query to a database is to extract information associated with the submitted query. Presenting those terms to said server is also inherent since a query result must be presented to a user when a query is submitted to indicate to the user whether any document was found according the submitted query. As to a computer program product, Cochran provides apparatus, method as well as computer software for implementing the invention (See Cochran Title; Col. 5, lines 40-42).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19, 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunner et al. U.S. Patent no. 5,550,971 in view of Cochran.

As per claims 19-20 and 25, Brunner et al. teaching of a database management system with adaptive user interface reads on the claimed features of "providing an element for extracting terms and presenting those terms to a user; providing an element for identifying a document containing a term; determining if the document contains subject matter related to said term', and providing an element for adding said term to said document as a meta-tag if it does; receiving a user selection of terms" (See Brunner Abstract', and Col. 2. line 45-Col.3, line 22.. Col. 4, lines 54-60). It is noted, however Brunner et al. did not specifically detail the aspects of adding the received terms to a document as a meta-tag. On the other hand, Cochran achieved the aforementioned limitations by providing "a search of the database is conducted based upon selected search terms" (2) subset of records identified by the search is used to form new list of search terms" and (3) "the matching records or hits are added/stored at the server 710". As to the aspect of adding as meta-tag. Cochran provides mechanism that allows terms added in the list to be viewed or access as meta- tag because "FIG. 3b shows a list of search terms 211 that is displayed if the user expands pick box 311 corresponding to the first list identifier 111, Start of Travel. There are five search terms 211 to choose from: January-March, April-June, July-September, October- December and Disregard Start of Travel. The default search term, January-March is highlighted and placed in the select box in order to indicate the search term that will be selected if no other term is selected. If the user had previously selected a term during a previous viewing of the search terms, that term will be highlighted as the default term. Once a pick box 31 1 has been expanded, a search term 21 1 may be selected by clicking on

the desired search term 21 1 with the cursor (step 18). The expanded pick box 31 1 will then close, leaving the selected search term 21 1 visible on the display device (step 20). If the expand field icon 411 is activated without selecting a search term 211, pick box 31 1 will close, leaving the default search term, January-March visible on the display device, as shown in FIG. 3c". The most important part of the description of Figure 3b, in another to understand the teachings of Cochran with respect to meta-tag or information about information, is a list of search terms 211 that is displayed if the user expands Dick box 31 1 corresponding to the first list identifier 111 (Sta4 of Travel). In this case, the first list identifier 111 (Start of Travel) is the data that describes meta-data list of search terms 211 because when Start Travel is selected the meta-data for a corresponding list of search terms are displayed within the travel search database window.

It would have been obvious to modify the database management system of Brunner et al. by incorporating the methodology of adding search terms to stored information taught by Cochran. The motivation being, to allow the data management system of Brunner et al to save computer resources, especially on-line transmission resources, and makes searching more accurate and user-friendly.

### **(10) Response to Argument**

The Applicant argued, "the search terms of Cochran may be added to the list of search terms, but they are not added to the stored information against which the search terms are processed". However, agreed that the lists for the list identifiers of Cochran may be updated to include new search terms. These search terms are added to the list, and the search terms contained within the list are used to search a database "for records having the selected search terms" (col. 8, lines 47-48).

The Examiner respectfully submits that since, in Cochran, the subset of records identified by the search are used to form the new lists of search terms and since the records are the actual documents retrieved based on the search terms and those records are used to form the new lists that the user can further apply a search query against (see Cochran Abstract), that, therefore, implies the list of terms are selectively added to the stored information against which the search queries are processed.

The Applicant also argued, that Cochran fails to disclose "meta-tag" as recited in claim 7.

The Examiner respectfully disagrees with the preceding argument because records are documents that described the information retrieved based on the search terms selected from the lists (meta information section). The (records), disclosed in Cochran, are clearly metadata (data that describe other data). Figure 4c is showing records for search result based on the default search terms 214-217 (see Col. 13, lines 4-13). In this case, the records are (metadata) that describes the search results (data). Also, according to the Applicant, "a meta-tag is an entry in a meta-information section of

a document or file". Since entries can be made to list of search terms (meta information section), Cochran clearly discloses "meta tag".

The Applicant further argued "Cochran also fails to teach "storing a list of search terms ... with frequency of occurrence" and "selecting at least a portion of relatively high frequency search terms," as recited in claim 7".

However, Cochran's specification is clear on frequency of occurrence. Especially, Cochran stated that search of a database is made in accordance with standard techniques such as described in Cochran Patents 5,206,949 and 4,879,648 where a control category can display high frequency search terms using the "give number of records found" for later selection.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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